

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012595**Date Inspected:** 05-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspectors: Mr. You Qi Guo, Mr. Liu Hua Jie and Mr. Du Zhi Qun

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Tower Bay 10

This QA Inspector observed Mr. Dong Chang Xi, stencil 070046 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to add weld material and extend the length of East tower component SSD1-A683A/B in accordance with weld repair document TWR-3082. Prior to commencement of the weld, this QA Inspector observed ZPMC QC Inspector Mr. Guo Zhi Chun adjusting the welding machine to have a current of approximately 290 amps and 30.0 volts. ZPMC welder Mr. Dong Chang Xi appears to be certified to make these welds. This QA Inspector observed ZPMC has electrical heating elements to preheat the base material temperature and ZPMC QC personnel are monitoring the welding and base material temperatures. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Tau Wan Yue, stencil 070478 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to add weld material and extend the length of East tower component SSD1-A683A/B in accordance with weld repair document TWR-3082. to commencement of the weld, this QA

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Inspector observed ZPMC QC Inspector Mr. Guo Zhi Chun adjusting the welding machine to have a current of approximately 290 amps and 29.0 volts. ZPMC welder Mr. Tau Wan Yue appears to be certified to make these welds. This QA Inspector observed ZPMC has electrical heating elements to preheat the base material temperature and ZPMC QC personnel are monitoring the welding and base material temperatures. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Cun Xiung, stencil 070101 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to add weld material and extend the length of East tower shear plate ED1-27A in accordance with weld repair document TWR3074. This QA Inspector observed a welding current of approximately 290 amps and 29.3 volts and ZPMC welder Mr. Wu Cun Xiung appears to be certified to make these welds. This QA Inspector observed ZPMC has electrical heating elements to maintain the base material temperature and ZPMC QC personnel are monitoring the interpass temperature to ensure the base material is an acceptable temperature. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jiu Jing Yong, stencil 067500 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to add weld material and extend the length of East tower shear plate ED1-27A in accordance with weld repair document TWR3074. This QA Inspector observed a welding current of approximately 305 amps and 28.0 volts and ZPMC welder Mr. Jiu Jing Yong appears to be certified to make these welds. This QA Inspector observed ZPMC has electrical heating elements to maintain the base material temperature and ZPMC QC personnel are monitoring the interpass temperature to ensure the base material is an acceptable temperature. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Mr. Chen Shang Chun, stencil 046704 is using shielded metal arc weld procedure specification WPS-B-T-4112 to tack weld temporary run off plates on the end of groove welds on shear link ND1-SA4-68-143M-8-1B. This QA Inspector observed that the base material where the weld was made being preheated to a minimum of 140 degrees Celsius and a ZPMC QC CWI Mr. You Qi Guo verified the preheat prior to commencement of this welding. This QA Inspector measured a welding current of approximately 180 amps. This QA Inspector observed the welding electrodes are being stored in a portable rod oven which is hot to the touch and is connected to an electric power cable and Mr. Chen Shang Chun appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG BAY 14

This QA Inspector observed ZPMC welder Mr. Xu Li Fuli, stencil 045136 has recently used shielded metal arc process WPS-B-T-2112 to tack weld floor beam FB3080 to longitudinal diaphragms at OBG segment 12AW panel point 112. This QA Inspector observed Mr. Xu Li Fuli is certified to make this weld and the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

Mr. Jiang Shi Zhen, stencil 048694 is using shielded metal arc welding procedure WPS-B-P-2213-TC-U4b-FCM-1 to tack weld edge plate 140B to side plate 684B near panel point 105 OBG segment 11DE. This QA Inspector observed ZPMC QC Inspectors Mr. Tao Xu is monitoring this welding. This

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QA Inspector observed r. Jiang Shi Zhen appears to be certified to make this weld and the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch.

Items observed on this date appeared to generally comply with applicable contract documents. See the photographs below for additional information.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul
Reviewed By:	Carreon,Albert

Quality Assurance Inspector
QA Reviewer
